CENTRAL INTELLIGENCE AGENCY

S E C R E T

25X1

COUNTRY East Germany

REPORT [redacted] 25X1

SUBJECT VEB EFEM Development Tasks in April 1955

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This is UNEVALUATED Information

SOURCE EVALUATIONS ARE DEFINITIVE. APPRAISAL OF CONTENT IS TENTATIVE.

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1. The VEB Entwicklung und Fertigung Elektrische Messinstrumente (development and production of electrical measuring instruments) (VEB EFEM) had the following tasks in hand in April 1955:

a. Switch Board Instruments:

(1) [redacted]

(a). Direct current ink recorder
(b). Current recorder
(c). Voltage recorder
(d). Power supply for switchboard installation with direct feed (Geradfuehrung)

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Estimated cost of development: 60,000 DME. Only 15,000 DME have so far been paid to VEB EFEM and work on this project is being held up.

(2) [redacted] Switchboard output gauge with iron-sealed apparatus for electrodynamic measurements. 25X1

(a). Twin - triple lead direct current
(b). Single phase current (one measuring instrument)
(c). Triphase current of equal load with accessible point (Drehstrom gleicher Belastung mit zugaenglichem Nullpunkt) (one measuring instrument)
(d). Triphase current of optional load without neutral feeder (two measuring instruments)
(e). Quadruple lead triphase current (three measuring instruments).

The design for this equipment is complete. Production models have been satisfactorily tested and will be passed, together with the plans, to the VEB Werk fuer Signal und Sicherungstechnik (EAW), Berlin-Treptow, for series production. 100,000 DME have been paid to VEB EFEM for development.

(3) [redacted] Electromagnetic switchboard instruments. 25X1

(a). for attracting current at 0.1 to 100 Amps.

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STATE	X	ARMY	X	NAVY	X	AIR	X	FBI		AEC		ORR Ev X	OSI Ev	X

(Note: Washington distribution indicated by "X"; Field distribution by "#".)

(b). for alternating voltage of 10 to 600 V.

The design is complete and a prototype of each is to be passed to the Treptow plant for series production.

(4) [redacted] Electromagnetic switchboard instrument

The design was completed in March 1955; 15 prototypes have been built and delivered to VEB Geraetewerk Karl-Marx-Stadt. That factory will carry out the series production. Development costs totalled 50,000 DME.

b. Ships Instruments

(1) [redacted]

(a). Electrogoniometer (phase meter)
(b). Wattmeter registering up to 100 watts
(c). Frequency meter
(d). Synchronoscope
(e). Electrolyte counter
(f). DC and AC current and voltage meters.

These instruments are for the USSR; 10 prototypes of each one are to be constructed. 600,000 DME have been allotted for development, but as this money is insufficient to produce detailed plans, it has been decided to develop all 6 instruments from simple sketches.

c. Miscellaneous Tasks for the USSR

(1) [redacted] Instrument for recording traces of gas[1]

The design of this instrument is still in the laboratory stage. Development costs are estimated at 80,000 DME. VEB EFEM has so far received 40,000 DME for this task.

(2) [redacted] Testing instrument for low drift crystal (Schwingquarz).

The design was completed during March 1955 at a total cost of 60,000 DME. A prototype is being constructed. The task was set in 1953/4 [redacted]

[redacted]

(3) [redacted] Radiation measuring instrument.

150,000 DME have been paid for development.

(4) [redacted] Vibration recorder.

This is a converted frequency meter ([redacted] and also for the USSR). The conversion is complete.

(5) [redacted] Transportable recorder for carbon monoxide traces.

The design is complete and two prototypes are under construction.

d. Miscellaneous tasks for the East German government, unknown destinations.

(1) [redacted] Reflecting galvanometer.

This instrument is still under development. 30,000 DME have been paid for the task.

(2) [redacted] Bolometer Amplifier for AC — DC recorder.

Work has not begun as no money has been received towards the estimated development costs of 20,000 DME.

(3) [redacted]: Supersensitive relay. 25X1

Under development in the laboratory. 10,000 DME have been paid for the task.

(4) [redacted] Magnetetalon.[2] 25X1

Under development. Costs are estimated at about 3000 DME.

(5) [redacted] Measuring bench (Messplatz). 25X1

This task was cancelled during May 1955.

(6) [redacted] Ferrometer. 25X1

Lack of money is holding up development. Of the estimated costs (70,000 DME), only 25,000 DME have been paid to VEB EFEM.

(7) [redacted] Vectormeter assembly for magnetic measurements. 25X1

Only half the costs of development, 20,000 DME, have been made available to VEB EFEM.

(8) [redacted] Electromechanical amplifier. 25X1

No work has yet begun. Costs are estimated at 35,000 DME, but no money has been received.

(9) [redacted] Oscillation contact (Schwingkontakt) rectifier. 25X1

Work began in February 1955. The task is in the design stage and 12,000 DME have been received for its development. Two prototypes have been ordered.

(10) [redacted] Loss factor measuring bridge. 25X1

Work began in February 1955. 15,000 DME of the estimated costs of 35,000 DME have so far been received.

(11) [redacted] Ballistic wattmeter for measurement of switch output (Schaltleistungen). 25X1

Under development since February 1955. 10,000 DME have been paid for the task.

(12) [redacted] Current converter testing apparatus. 25X1

This task was abandoned during May 1955. During April 1955, the design was completed and the construction of prototypes begun after 20,000 DME had been paid for the task. The instrument was to have been used in the EAW, Treptow.

(13) [redacted] Magnetic measuring amplifier. 25X1

Under development since January 1955. Estimated costs: 25,000 DME. 10,000 DME have so far been received.

(14) [redacted] Direct voltage amplifier for biological use. 25X1

Under development since February 1955. Estimated costs: 70,000 DME. 25,000 DME have so far been paid.

(15) [redacted] Single phase electrometer. 25X1

Under development. Estimated costs: 20,000 DME.

(16) [redacted] Magnometer. 25X1

Under development. Estimated costs: 100,000 DME. 30,000 DME have so far been received.

(17) [redacted] High frequency watt/hour counter. 25X1

Under development since February 1955 and now undergoing laboratory tests. The estimated development costs, 35,000 DME, have been received.

(18) [redacted] Polarograph. 25X1

Estimated costs: 80,000 DME. 30,000 DME have so far been received.

(19) [redacted] Dietze Anleger.[3] 25X1

In the design stage. Estimated costs: 20,000 DME.

(20) [redacted] Measuring instrument for concrete road construction. 25X1

This task was abandoned during May 1955. Costs were estimated at 20,000 DME.

(21) [redacted] Directional characteristic reproducer. 25X1

The design was completed in March 1955; a prototype model is being constructed.

(22) [redacted] High frequency current converter (frequency range 100 kcs - 200 mcs). 25X1

In design stage.

(23) [redacted] Frequency meter 800 - 50,000 cycles. 25X1

Completed March 1955.

(24) [redacted] Ground humidity measuring instrument. 25X1

A prototype is being constructed.

(25) [redacted] Prism spectrograph. 25X1

The design was completed during April 1955, but further work is held up for lack of money. Estimated cost: 75,000 DME.

35,000 DME have so far been paid.

(26) [redacted] Light path recorder. 25X1

A new type of light path recorder on which work has not yet begun.

(27) [redacted] 8 - loop oscillograph. 25X1

The design for this instrument was completed in March 1955 and a prototype is being constructed.

(28) [redacted] Ink recorder for automatic level recording set. 25X1

This apparatus has been ordered by a (unidentified) scientific institute in Dresden and should be completed by July 1955.

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(29) [redacted] Vakuum--Schmelzanlage).4 25X1

Completed in February 1955 and now in commission.

(30) [redacted] Polarograph with photoelectric amplifier and ink recorder. 25X1

Design completed. Prototypes are being built and a total of 20 are to be made. This task is likely to be held up for lack of money.

(31) [redacted]: Ammeter with Schleppzeiger.5 25X1

This is a conversion task on behalf of VEB Funkwerk Koepenick which provided an ammeter to which VEB EFEM has now added a Schleppzeiger. The instrument is designed for the retention of maximum values.

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1. [redacted]
2. [redacted] Comment: Presumably this is a magnetic standard. 25X1
3. [redacted] Comment: Dietz feeder or applicator - a vacuum system for moving melted material.
4. [redacted] Comment: Vacuum smelting plant or vacuum melt transmitter - a vacuum system for moving melted material.
5. [redacted] Comment: We take it that this is an instrument for showing the highest point reached by a fluctuating current. 25X1

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